

APPLICANT(S): Zehavi, Eyal
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AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

In the Claims:

Please cancel claims 28 and 29 without prejudice or disclaimer.

Please amend the claims listed hereby to read as follows:

1. (Currently Amended) A security system for alerting of security situations, said system based on at least one dog behavior, said system comprised of:
 - at least one audio sensor for sampling dog sounds;
 - an analog to digital converter and amplifier;
 - an audio processor for differentiating between different signal sources and identifying single barks sounds in accordance with received measurements;
 - an audio analyzer unit for identifying characteristic sound signal patterns and determining alert level by comparing identified characteristics of sound patterns to predefined values, and wherein said analyzer is adapted to perform classification of a single bark by deriving spectral and cepstral features from the bark signal and performing a clustering algorithm based on statistical models;
 - a security terminal unit for notifying user of alert situations.
2. (Original) The systems of claim 1 further comprising of at least one biological sensor for measuring dog physiological status.
3. (Original) The system of claim 1 wherein the sound signal characteristics are signal time domain parameters.

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4. (Original) The system of claim 3 wherein the time domain parameters and statistics of calculated time intervals between single barks signals include: mean and variant of time intervals, bark rate variability, barking rate and the distribution variance of the barks.
5. (Original) The system of claim 1 wherein the sound signal characteristics are signal frequency domain parameters.
6. (Original) The system of claim 5 wherein the frequency domain parameters include pitch measurement for identifying single sound pattern, differentiating between signal sources or determining alert levels.
7. (Previously Presented) The system of claim 3 wherein the identification of a single sound pattern is achieved by detecting a signal energy pattern in the time domain.
8. (Previously Presented) The system of claim 1 wherein the audio processor includes band-pass filtering module for excluding background noises and signal normalization module.
9. (Original) The systems of claim 1 wherein the sound pattern relates to barks.
10. (Original) The systems of claim 1 wherein the sound pattern relates to sniffing, panting, or breathing.
11. (Original) The system of claim 2 wherein the physiological status includes heartbeat rate.
12. (Previously Presented) The system of claim 2 wherein the physiological status further includes breathing rate and depth, dog's gross motor activity, muscle tonus, skin conductivity and blood pressure.

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13. (Previously Presented) The security system of claim 1 wherein the sensor unit, located at a distance from the processing, analyzing and control units, further includes one or more communication modules for transferring information between the units.
14. (Previously Presented) The security system of claim 1 wherein the sensor units are attached to the dog body.
15. (Previously Presented) The security system of claim 1 wherein the sensor units are located in the dog's vicinity.
16. (Previously Presented) The security system of claim 1 wherein the sensor units are implemented in the dog's body.
17. (Currently Amended) A security method for alerting of security situations, said method based on at least one dog behavior, said method comprising:
- sampling dog sounds;
 - differentiating between different signal sources;
 - identifying single sound patterns in accordance to received samples;
 - identifying characteristics of sound pattern signals;
 - determining alert level by comparing identified characteristics of signal sound pattern to predefined values;
 - classifying a single bark by deriving spectral and cepstral features from the bark signal and performing a clustering algorithm based on statistical models;
 - notifying user of alert situation.
18. (Previously Presented) The method of claim 17 further comprising: measuring dog physiological status, processing physiological measurements and comparing to predefined values for determining alert situations.
19. (Original) The method of claim 17 wherein determining alert levels includes analyzing time domain parameters.

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20. (Currently Amended) The [system] method of claim 19 wherein the time domain parameters include time intervals between single barks sound pattern, barking rate, the distribution variance of the barks and bark rate variability.
21. (Original) The method of claim 17 wherein determining alert levels includes analyzing frequency domain parameters.
22. (Original) The method of claim 21 wherein frequency domain parameters include pitch measurement for identifying single sound pattern, differentiating between signal sources or determining alert level.
23. (Original) The method of claim 21 wherein frequency domain parameters include signal amplitude pattern in the time domain.
24. (Previously Presented) The method of claim 14 further including: filtering background noises, amplifying signals, and normalizing signal amplitude.
25. (Original) The method of claim 18 wherein the physiological status includes heart beat rate.
26. (Original) The method of claim 18 wherein the physiological status further includes breathing rate, gross motor activity, muscles tonus, skin conductivity and blood pressure.
27. (Previously Presented) The method of claim 17 wherein the sensor units are located at a distance from the processing, analyzing and control units further includes transferring information between the units.
28. (Cancelled)

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29. (Cancelled)

30. (Currently Amended) A security system for alerting of security situations, said system based on at least one dog behavior, said system comprised of:

one or more audio processors adapted to differentiate between different signal sources and to identify single bark sounds in accordance with measurements received from one or more audio sensors associated with said security system;

an audio analyzer for identifying characteristic sound signal patterns and determining alert level by comparing identified characteristics of sound patterns to predefined values, and wherein said analyzer is adapted for classifying a single bark by deriving spectral and cepstral features from the bark signal and performing a clustering algorithm based on statistical models; and

one or more physiological data analyzers for identifying one or more characteristics of physiological data and for determining alert level by comparing identified characteristics of physiological data to predefined values.